# **DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2021-0461; Project Identifier MCAI-2021-00156-R]

**RIN 2120-AA64** 

Airworthiness Directives; Leonardo S.p.a. Helicopters

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Leonardo S.p.a. Model AB139 and AW139 helicopters. This proposed AD was prompted by a report of a short circuit caused by chafing of the electrical wiring in the overhead panel. This proposed AD would require an initial detailed inspection inside the overhead panel for certain helicopters, repetitive detailed inspections inside the overhead panel for all helicopters, and corrective actions if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.
  - Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West
   Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC
   20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; Internet: www.easa.europa.eu. You may find this material on the EASA website at https://ad.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. This material is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0461.

### **Examining the AD Docket**

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0461; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jacob Fitch, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; phone: (817) 222-4130; email: jacob.fitch@faa.gov.

#### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2021-0461; Project Identifier MCAI-2021-00156-R" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

#### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Jacob Fitch,

Aerospace Engineer, COS Program Management Section, Operational Safety Branch,

Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX

76177; phone: (817) 222-4130; email: jacob.fitch@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0044, dated February 5, 2021 (EASA AD 2021-0044), to correct an unsafe condition for all Leonardo S.p.a. Model AB139 and AW139 helicopters.

This proposed AD was prompted by a report of a short circuit caused by chafing of the electrical wiring in the overhead panel. The FAA is proposing this AD to address a short circuit caused by chafing of the electrical wiring in the overhead panel, which could cause damaged electrical wiring, possible fire in the overhead panel, and loss of control of the helicopter. See EASA AD 2021-0044 for additional background information.

#### **Related Service Information Under 1 CFR Part 51**

EASA AD 2021-0044 requires an initial detailed inspection (for certain helicopters) inside the overhead panel for chafing of the cable harnesses and for correct clearance between the anchor nuts/screws and the cable harnesses, of the screws for correct length, and of the supports for sound bonding, and corrective actions if necessary; repetitive detailed inspections (for all helicopters) inside the overhead panel for the condition of the white protective tape on the anchor nuts, and for chafing of the cable harnesses and for correct clearance between the anchor nuts/screws and the cable harnesses, and corrective actions if necessary. Corrective actions include applying a white protective tape on the anchor nuts, replacement of incorrect length screws, replacement of damaged cables and fuses, rerouting of cable harnesses, replacement of supports, and removal and replacement of the white protective tape.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

These helicopters have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the bilateral agreement with the European Union, EASA, its technical representative, has notified the FAA of the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

# **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in EASA AD 2021-0044, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under "Differences Between this Proposed AD and the EASA AD."

### **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use certain civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating with other manufacturers and CAAs. As a result, EASA AD 2021-0044 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2021-0044 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all

required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in the EASA AD. Service information specified in EASA AD 2021-0044 that is required for compliance with EASA AD 2021-0044 will be available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0461 after the FAA final rule is published.

## Differences Between this Proposed AD and the EASA AD

Although EASA AD 2021-0044 and the service information referenced in EASA AD 2021-0044 specify to submit certain information to the manufacturer, this AD does not include that requirement.

### **Interim Action**

The FAA considers this proposed AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

# **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 128 helicopters of U.S. Registry. The FAA estimates the following costs to comply with this proposed AD:

## **Estimated costs for required actions**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection for chafing, clearance, screw length, and bonding	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$10,880
Repetitive inspections for chafing, clearance, and tape condition	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0 per inspection cycle	\$85 per inspection cycle	\$10,880 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

#### **Estimated costs of on-condition actions**

Action	Labor cost	Parts cost	Cost per product
Replace screws, cables, fuses, supports, and protective tape; reroute harnesses	5 work-hours X \$85 per hour = \$425	\$600	\$1.025
Apply protective tape	1 work-hour X \$85 per hour = \$85	\$50	\$135
Replace cables, fuses and protective tape	1 work-hour X \$85 per hour = \$85	\$600	\$685

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

# List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Leonardo S.p.a.:** Docket No. FAA-2021-0461; Project Identifier MCAI-2021-00156-R.

#### (a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

### (b) Affected ADs

None.

### (c) Applicability

This AD applies to all Leonardo S.p.a. Model AB139 and AW139 helicopters, certificated in any category.

## (d) Subject

Joint Aircraft System Component (JASC) Code 2400, Electrical Power System.

### (e) Unsafe Condition

This AD was prompted by a report of a short circuit caused by chafing of the electrical wiring in the overhead panel. The FAA is issuing this AD to address a short circuit caused by chafing of the electrical wiring in the overhead panel, which could cause damaged electrical wiring, possible fire in the overhead panel, and loss of control of the helicopter.

### (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

# (g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0044, dated February 5, 2021 (EASA AD 2021-0044).

### (h) Exceptions to EASA AD 2021-0044

- (1) Where EASA AD 2021-0044 refers to its effective date, this AD requires using the effective date of this AD.
  - (2) The "Remarks" section of EASA AD 2021-0044 does not apply to this AD.
- (3) Where EASA AD 2021-0044 refers to flight hours (FH), this AD requires using hours time-in-service.
- (4) Where paragraphs (3) and (5) of EASA AD 2021-0044 refer to "any discrepancy," for this AD, discrepancies include chafing of the cable harnesses or incorrect clearance between the anchor nuts/screws and the cable harnesses, incorrect length of the screws, inadequately bonded supports, and poor condition of the white protective tape.

## (i) No Reporting Requirement

Although EASA AD 2021-0044 and the service information referenced in EASA AD 2021-0044 specify to submit certain information to the manufacturer, this AD does not include that requirement.

## (j) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the helicopter can be modified (if the operator elects to do so), provided the flight is straight, level, and avoids areas of known turbulence.

#### (k) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (1)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.
- (2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

## (I) Related Information

(1) For EASA AD 2021-0044, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; Internet: www.easa.europa.eu. You may find this EASA AD on the EASA website at https://ad.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX

76177. For information on the availability of this material at the FAA, call 817-222-5110. This material may be found in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0461.

(2) For more information about this AD, contact Jacob Fitch, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; phone: (817) 222-4130; email: jacob.fitch@faa.gov.

Issued on June 7, 2021.

Ross Landes, Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.

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